TECHNICAL INFORMATION BULLETIN

TiL Model: **TDFM-600/6000 transceivers with type I or type II modules.**

TiL P/N: **011210-1, -2, -3, -4, -5 and -6 all model variations.**

Affected S/No: ALL

Purpose: **TDFM-600/6000 TRANSCEIVER PROGRAMMING**
Note: Different cables and programming software is required for units with type I modules vs. units with type II modules.

Parts Required:

The following items that are identified as Motorola parts can only be purchased from Motorola Customer Service at 1-888-567-7347 or other authorized Motorola sales outlet. These items are not available from Technisonic. Technisonic is unable to sell these items direct as it will be necessary to enter into a software licensing agreement with Motorola prior to the purchase of CPS software.

TDFM-600/6000 Transceivers with type I modules

ITEM	PART NUMBER	DESCRIPTION
SOFTWARE	RVN4182 (Motorola)	Motorola XTS-3000 CPS Software
INTERFACE BOX	RLN1015D (Motorola)	SmartRIB Interface Box
AC POWER ADAPTER*	01-80302E27 (Motorola)	SRIB AC Power Pack 110V
AC POWER ADAPTER*	25-80373E86 (Motorola)	SRIB AC Power Pack 220V
Computer Interface Cable*	30-80390B49 (Motorola)	25 pin to 9 pin, PC to SmartRIB cable
Computer Interface Cable*	30-80390B48 (Motorola)	9 pin to 9 pin, PC to SmartRIB cable
Transceiver Interface Cable	013524-1 (Technisonic)	25 to 25 pin SmartRIB to TDFM600/6000 Transceiver interface cable
KVL-3000 Key Loader Cable (Only required if encryption keys need to be loaded).	047381-1 (Technisonic)	KVL-3000 connector to 25 pin TDFM600/6000 transceiver connector.

*Select appropriate SRIB to operate on 110V or 220V as required. Select appropriate computer cable with 9-pin or 25 pin computer interface as required.

Transceiver Interface Cable, P/N 013524-1

Must be purchased from Technisonic or fabricated as per Figure 2-2 of TiL document No. 01RE293C "Installation and Operating Manual". For use with Transceivers with type I modules only.

Key Loader Cable, P/N 047381-1

Must be purchased from Technisonic. Allows encryption keys to be loaded into the rear connector of the TDFM-600/6000 with a KVL-3000 Key Loader. Only required if the transceiver has been delivered with optional encryption capability. Can be used for Transceivers with type I or type II modules

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Optional AMS-6000 Download/Programming Cables "Type I"

If the optional AMS-6000 is utilised with a TDFM-600/6000 with type I modules the following cables will plug directly into the front panel of the AMS-6000 for transceiver programming and encryption key loading.

ITEM	PART NUMBER	DESCRIPTION
Download/Programming Cable. For use with type I modules.	037347-1 (Technisonic)	Mates with AMS-6000 mini-DIN to SRIB interface Box.
Encryption Key Loader cable type I or II modules	037348-1 (Technisonic) replaces P/N:037352-1	Mates with AMS-6000/TDFM636/ 7000 mini-DIN to KVL-3000 Key Loader.

TDFM-600/6000 Transceivers with type II modules

The TDFM-600/6000 series transceivers that employ type II modules do not require a Smart RIB box, AC power pack or computer RIB cable. Only the following parts are required..

ITEM	PART NUMBER	DESCRIPTION
SOFTWARE	RVN4186 (Motorola)	Motorola XTS-5000 CPS Software
PC6000 II Programming Cable. For use with type II modules only.	047366-1 (Technisonic)	Mates with TDFM-600/6000/636 rear connector to PC computer.
Key Loader Cable (Only required if encryption keys need to be loaded).	047381-1 (Technisonic)	KVL-3000 connector to 25 pin TDFM600/6000 transceiver connector.

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Transceiver Interface Cable, P/N 047366-1

Must be purchased from Technisonic. It cannot be fabricated due to circuits within the cable. For use with TDFM-600/6000 Transceivers with type II modules only.

Key Loader Cable, P/N 047381-1

Must be purchased from Technisonic. Allows encryption keys to be loaded into the rear connector of the TDFM-600/6000 with a KVL-3000 Key Loader. Only required if the transceiver has been delivered with optional encryption capability. Can be used for Transceivers with type I or type II modules.

Optional AMS-6000 Download/Programming Cables "Type II"

If the optional AMS-6000 is utilised with a TDFM-600/6000 with type II modules the following cables *will plug directly into the front panel* of the AMS-6000 for transceiver programming and encryption key loading. These cables will also plug directly into the front panel connector on the model TDFM-636 transceiver.

ITEM	PART NUMBER	DESCRIPTION
PC7000 Download/ Programming Cable. For use with type II modules only.	047365-1 (Technisonic)	PC computer cable that mates with AMS-6000 mini-DIN or TDFM-636 front panel connector.
Encryption Key Load Cable. Use with type I or II modules.	037348-1 (Technisonic) replaces P/N:037352-1	Mates with AMS-6000/TDFM-636 mini-DIN to KVL-3000 Key Loader.

Procedure:

The Technisonic TDFM-600/6000 series transceivers require Motorola CPS (Customer Programming Software) to be programmed with memory location, operating frequency and other required information. This may include certain parameters for use in a Motorola trunked radio system. Transceivers with type I modules can only be programmed via a PC with Motorola CPS software and the Smart Radio Interface box (SRIB) with necessary cables. Transceivers with type II modules requires a Technisonic programming cable P/N 047366-1 along with a different version of CPS software. *Note: Smart Radio Interface box not required for type II modules*

The TDFM-600/6000 Transceivers can only be programmed by Motorola CPS Software. The following settings may be programmed for each Channel in a Conventional Radio:

Tx Frequency   Zone
Tx PL/DPL Code   Channel
Rx Frequency   Name
Rx PL/DPL Code   RX Signal Voice Type
Time-Out Timer   TX Signal Voice Type
Scan List   Network Access Code

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Phone   Tx Power

The TDFM-636 will allow some of the above settings to be programmed via the front panel in its conventional module. However initial programming must be performed by Motorola CPS software.

The following settings must be programmed for each mode in a Trunked (P25 9600, SmartNet* or SMARTZONE*) Radio:

System Type	TG Strapping
System ID	Zone
Individual ID	Scan List
Coverage Type	Scan Type
Affiliation Type	Interconnect
Control Channel 1	Phone Display Format
Control Channel 2	Private Call
Talkgroup 1	Private Call Type
Talkgroup 2	Private Call Operation

Contact Technisonic Industries if any further information is required.

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